

Amendments to the Claims

This listing of claims will replace all prior versions, and listing, of claims in the application.

Listing of Claims:

1. (previously presented) An injection moulded product comprising:
a carrier web layer which is a film selected from the group consisting of polyester and biaxially oriented polypropylene;
a circuitry pattern and an integrated circuit on the surface of the carrier web layer;
a melted intermediate thermoplastic layer having a first and an opposite second surface, the first surface overlying and bonded to the carrier web; and
an injection moulded layer attached to the second surface of the intermediate layer, the intermediate layer between the carrier web layer and the injection molded layer, and the intermediate layer being melted during an injection moulding to attach it to the injection moulded layer.
2. (previously presented) The product according to claim 1, wherein the intermediate layer is a thermoplastic adhesive bonding film which has been melted during an injection moulding to adhere to the injection moulded layer.
3. (previously presented) The product according to claim 1, wherein the intermediate layer is an extruded thermoplastic film which has been melted during an injection moulding to adhere to the injection moulded layer.
4. (previously presented) The product according to claim 1, 2 or 3 wherein the carrier web layer, circuitry pattern, an integrated circuit on a chip and the intermediate layer comprise a smart card blank.
5. (previously presented) The product according to claim 4, wherein the injection moulded product is a smart card.

6-9. (cancel)

10. (previously presented) A smart card comprising:

a carrier web layer which is a film selected from the group consisting of polyester and biaxially oriented polypropylene;

a circuitry pattern;

an integrated circuit on a chip attached to the circuitry pattern, the circuitry pattern on the surface of the carrier web layer;

a melted intermediate thermoplastic layer overlying the surface of the carrier web with the circuitry pattern; and

an injection moulded layer, the injection moulded layer bonded to the carrier web layer by the intermediate layer which is between the injection moulded layer and the carrier web layer, the intermediate layer having been melted during an injection moulding to bond the carrier web layer to the injection molded layer to provide the smart card.

11. (previously presented) A smart card according to claim 10 wherein the intermediate layer is a polyurethane based composition, or a composition based on modified polyolefin.

12. (cancel)

13. (previously presented) The injection moulded product according to claim 1 wherein the intermediate layer is selected from the group consisting of polyolefin, polyurethane and polyester.

14. (cancel)

15. (previously presented) The smart card according to claim 10 wherein the intermediate layer is selected from the group consisting of polyolefin, polyurethane and polyester.

16. (cancel)

17. (previously presented) The smart card according to claim 10 wherein the intermediate layer is a thermoplastic adhesive bonding film which has been melted during an injection moulding to attach it to the injection moulded layer.

18. (previously presented) The smart card according to claim 10 wherein the intermediate layer is an extruded thermoplastic film which has been melted during an injection moulding to attach it to the injection moulded layer.

19. (previously presented) An injection moulded radio frequency identification circuit product comprising:

a carrier film substrate selected from the group consisting of polyester and biaxially oriented polypropylene;

a circuitry pattern and an integrated circuit on the surface of the carrier film substrate;

an intermediate layer over and under the carrier film substrate, each intermediate layer selected from the group consisting of a melted thermoplastic extruded layer and a melted thermoplastic adhesive bonding film; and

an injection moulded body overlying and attached to the intermediate layers, the intermediate layers between the carrier web layer and the injection molded body, and the intermediate layers having been melted to bond the carrier film substrate to the injection moulded body.

20. (previously presented) The injection moulded radio frequency identification circuit product according to claim 19 wherein the intermediate layers are melted thermoplastic extruded films which are melted during an injection moulding of the injection moulded body, the melting forming the intermediate layers which adhere the injection moulded body to the carrier film substrate.

21. (previously presented) The injection moulded radio frequency identification circuit product according to claim 19 wherein the intermediate layers are melted thermoplastic adhesive bonding films which are melted during an injection moulding of the injection moulded body, the thermoplastic adhesive bonding films selected from the group consisting of polyolefin, polyurethane and polyester.

22. (cancel)

23. (previously presented) A smart card comprising:

a carrier web layer film selected from the group consisting of polyester and biaxially oriented polypropylene;

a circuitry pattern;

an integrated circuit on a chip attached to the circuitry pattern, the circuitry pattern on the surface of the carrier web layer film;

an extruded intermediate thermoplastic layer overlying the surface of the carrier web film with the circuitry pattern; and

an injection moulded layer, the injection moulded layer bonded to the carrier web layer film by the intermediate layer which is between the injection moulded layer and the carrier web layer film, the intermediate layer having been an extruded thermoplastic film extruded over the carrier web layer film and then melted to bond the carrier web layer film to the injection molded layer during an injection moulding of the injection moulded layer to provide the smart card.

24. (cancel)

25. (previously presented) An injection moulded product comprising:

a carrier web layer film selected from the group consisting of polyester and biaxially oriented polypropylene;

a circuitry pattern;

an integrated circuit on a chip attached to the circuitry pattern, the circuitry pattern on the surface

of the carrier web layer film;

a melted extruded thermoplastic film, the melted extruded film overlying the surface of the carrier web film with the circuitry pattern; and

an injection moulded layer, the injection moulded layer bonded to the carrier web layer by the extruded melted thermoplastic film, the melted extruded thermoplastic film between the injection moulded layer and the carrier web layer, the melted extruded thermoplastic film melted during the injection moulding of the injection moulded layer to bond the carrier web layer to the injection moulded layer.

26. (currently amended) The injection moulded product according to claim 25 ~~24~~ wherein the melted extruded thermoplastic film is copolyester.

27. (cancel)

28. (previously presented) An injection moulded product comprising;

a carrier web layer which is a film selected from the group consisting of polyester and biaxially oriented polypropylene;

a circuitry pattern;

an integrated circuit on a chip attached to the circuitry pattern, the circuitry pattern on the surface of the carrier web layer film;

a melted thermoplastic adhesive bonding film selected from the group consisting of polyolefin, polyurethane and polyester, the melted film overlying the surface of the carrier web film with the circuitry pattern; and

an injection moulded layer, the injection moulded layer bonded to the carrier web layer film by the melted thermoplastic adhesive bonding film, the melted thermoplastic adhesive bonding film between the injection moulded layer and the carrier web layer film, the melted thermoplastic adhesive

bonding film melted during the injection moulding of the injection moulded layer to bond the carrier web layer to the injection molded layer.

29. (previously presented) The product according to claim 28, wherein the injection moulded product is a smart card.